

## PATENT ABSTRACTS OF JAPAN

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(54) ACRYLIC EMULSION AND PH-INDEPENDENT SLOWLY RELEASING DRUG

(57)Abstract:

PURPOSE: To obtain a drug capable of retarding the release of a drug component at a desirable rate and storable without causing fusion and change in releasing properties, by applying an outer coating film composed of an acrylic copolymer produced by using a hydroxyalkyl methacrylate as a comonomer.

CONSTITUTION: An aqueous emulsion of a copolymer is produced by the emulsion polymerization of (A) an alkyl acrylate (preferably ethyl acrylate), (B) an alkyl methacrylate (preferably methyl methacrylate) and (C) a hydroxyalkyl methacrylate (preferably 2-hydroxyethyl methacrylate). A drug containing a specific active component is coated with the emulsion. The ration of the copolymerized monomers in the above copolymer (A/B) is preferably 3/1W1/3 and that of C/(A+B) is preferably 1/(2W10).

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L1 ANSWER 1 OF 1 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD.  
 AN 1989-175279 [24] WPIDS  
 DNC C1989-077495  
 TI Acrylic emulsion for pH independent sustained release coatings - consists of copolymers of alkyl ester acrylate alkyl ester methacrylate and hydroxy alkyl methacrylate.  
 DC A14 A82 A96 A97 B07 C04 D13  
 PA (FUJI-N) FUJI POWDAL KK  
 CYC 1  
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The water system emulsion consists of copolymers of alkylester acrylate e.g. ethyl acrylate, alkylester methacrylate e.g. methyl methacrylate and hydroxyalkyl methacrylate e.g. 2-hydroxyethyl methacrylate. (2) A coat made of (1). (3) A pH independent sustained release preparation whose external coat is (2).

To prep. the emulsion an emulsifier as SDS (sodium dodecyl sulphate) is pref. dissolved in distilled water and a mixture of monomers (alkylester acrylate: alkylester methacrylate = 3:1-1:3. The total of alkylester acrylate and alkylester methacrylate: hydroxyalkyl methacrylate = 2:1-10:1. As alkylester or acrylate, pref. methyl acrylate, ethyl acrylate, butyl acrylate are used. Especially, ethyl acrylate is preferred. As alkylester methacrylate, pref. methyl methacrylate, ethyl methacrylate, butyl methacrylate are used. Especially ethyl methacrylate is preferred. As hydroxyalkyl methacrylate, 2-hydroxymethyl methacrylate is pref.) is added and emulsified. The mixture is stirred in a stream of nitrogen. A reaction initiating agent as ammonium persulphate (APS) is pref. added and the reaction is continued for a fixed time. During the reaction, APS is added. After the reaction, the mixt. solution is filtered to give the desired copolymer emulsion.

USE/ADVANTAGE - Useful as sustained release preparation, moisture-proof coat for foods, coat of sustained release fertilisers and perfumes. Coating at lower temp. than the softening point of the coat is possible, which makes preparation easy. Elution time of a coated drug can be controlled in a digestive organ independently of pH, so delivering the drug to small intestine and large intestine is possible.  
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*un E. nicht relevant*

**Werner, Sabrina**

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